

## **IN THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

### **Listing of Claims**

1. (Currently Amended) A broadcasting system comprising:  
a broadcasting station for broadcasting digital content containing attribute information indicating an attribute thereof and an electronic program guide (EPG); and  
a plurality of reception apparatuses having  
reception means for receiving said digital content and said attribute information broadcast from the broadcasting station,  
a recording medium for recording the received digital contents and the received attribute information,  
output means for outputting the received digital contents, and  
selection means for allowing a user to select the digital contents via a filtering process by comparing selection information indicating user preferences with attribute information assigned to the digital contents,  
~~wherein said user activates or deactivates the filtering process at any time,~~  
~~otherwise a controlling unit automatically activates or deactivates the filtering process;~~  
~~wherein while the controlling unit displays the EPG, said plurality of reception apparatuses modify the EPG's program titles in accordance with the user's selection such that~~  
~~when a program matches the selection information and the attribute information, the controlling~~

~~unit displays the title information indicating the program title in a different state from the other~~  
~~program titles;~~

~~said plurality of reception apparatuses store said digital contents that match said~~  
~~user preferences even if said user does not reserve said digital contents;~~

said attribute information is expressed with an n-dimensional vector A comprising  
attribute items as elements each ~~indicative~~ identifying of attribute intensities for the digital  
content,

wherein an order and a number of the attribute items is predetermined;

said selection information is expressed with an n-dimensional vector S comprising  
user preference items as elements,

wherein each element ~~is~~ identifies a preference intensity of a corresponding  
element in the n-dimensional vector A,

wherein each element of vector A may identify a positive attribute intensity and  
may identify a negative attribute intensity,

wherein each element of vector S may identify a positive preference intensity and  
may identify a negative preference intensity, and

;

~~item types and orders for said attribute information and said selection information~~  
~~correspond to an attribute information's vector A and a selection information's vector S;~~

wherein said plurality of reception apparatuses include a selection means for: (1)  
performing an inner product operation between the attribute information's vector A and the  
selection information's vector S; and, and determines (2) determining whether to select the  
digital content based on the result of the inner product operation. ; and

~~wherein said controlling unit analyzes the attribute information vector for each of a plurality of user selected contents and then modifies the n-dimensional vector S that comprises user preference items by computing a new weight for each element of the n-dimensional vector S as a function of each of the elements of each of the attribute information vectors of each of the plurality of user selected contents.~~

2. – 9. ( Canceled)

10. (Currently Amended) A reception apparatus comprising:  
reception means for receiving digital content containing electronic program guide (EPG) and attribute information transmitted from a content provider~~broadcast from a broadcasting station via a plurality of reception apparatuses;~~  
a recording medium for recording the received digital content and the attribute information;  
output means for outputting the received digital content; and  
selection means for allowing a user to select the digital content via a filtering process by comparing selection information indicating user preferences with attribute information attached to the digital content,

~~wherein said user activates or deactivates the filtering process at any time, otherwise a controlling unit automatically activates or deactivates the filtering process;~~

~~wherein while the controlling unit displays the EPG, said plurality of reception apparatuses modify the EPG's program titles in accordance with the user's selection such that when a program matches the selection information and the attribute information, the controlling~~

~~unit displays the title information indicating the program title in a different state from the other~~  
~~program titles;~~

~~said plurality of reception apparatuses store said digital content that match said~~  
~~user preferences even if said user does not reserve said digital content;~~

said attribute information is expressed with an n-dimensional vector A comprising  
attribute items as elements each ~~indicative of~~identifying attribute intensities for the digital  
content,

wherein an order and a number of the attribute items is predetermined;

said selection information is expressed with an n-dimensional vector S comprising  
user preference items as elements,

wherein each element is ~~is~~identifies a preference intensity of a corresponding  
element in the n-dimensional vector A $[[;]]$ ,

wherein each element of vector A may identify a positive attribute intensity and  
may identify a negative attribute intensity,

wherein each element of vector S may identify a positive preference intensity and  
may identify a negative preference intensity, and

~~item types and orders for said attribute information and said selection information~~  
~~correspond to an attribute information's vector A and a selection information's vector S;~~

wherein said selection means performs an inner product operation between the  
attribute information's vector A and the selection information's vector S, and determines whether  
to select the digital content based on the result of the inner product operation. ; and

~~wherein said controlling unit analyzes the attribute information vector for each of~~  
~~a plurality of user selected contents and then modifies the n-dimensional vector S that comprises~~

~~user preference items by computing a new weight for each element of the n-dimensional vector S as a function of each of the elements of each of the attribute information vectors of each of the plurality of user selected contents.~~

11. (Previously Presented) The reception apparatus according to claim 10, wherein said selection means finds a selection value P based on the following equation and selects the digital content based on a size of the selection value P as follows:

$$A = (a_1, a_2, a_3, \dots, a_n)$$

$$S = (s_1, s_2, s_3, \dots, s_n)$$

$$P = \frac{A \cdot S}{|A| \cdot |S|}$$

where

$$A \cdot S = \sum_{k=1}^n a_k s_k$$

$$|A| = \sqrt{\sum_{k=1}^n a_k^2}$$

$$|S| = \sqrt{\sum_{k=1}^n s_k^2}$$

in which neither A nor S is a zero vector.

12. (Previously Presented) The reception apparatus according to claim 10, wherein said selection information's vector S is found from a vector A of attribute information attached to a plurality of digital contents selected by the user.

13. (Previously Presented) The reception apparatus according to claim 12, wherein said selection information's vector S is found according to the following equation:

$$S = \frac{1}{M} \sum_{k=1}^M A_k$$

where M is assumed to be a number of digital contents selected by the user and an attribute vector for the K-th digital content selected by the user is assumed to be:  $A_k = (a_{1k}, a_{2k}, a_{3k}, \dots, a_{nk})$ .

14. (Previously Presented) The reception apparatus according to claim 12, wherein said selection information's vector S is found according to the following equation:

$$S = \frac{1}{M} \sum_{k=L-M+1}^L A_k$$

where M is assumed to be a number of windows for finding a vector S, L is assumed to be a start point for selecting the plurality of digital contents for finding the vector S, and an attribute vector for the K-th digital content selected by the user is assumed to be:  $A_k = (a_{1k}, a_{2k}, a_{3k}, \dots, a_{nk})$ .

15. (Previously Presented) The reception apparatus according to claim 12, wherein said selection information's vector S is found by averaging vectors A for attribute information attached to the plurality of digital contents reproduced by the user for a specified time.

16. (Previously Presented) The reception apparatus according to claim 12, wherein said selection information's vector S is found by averaging vectors A for attribute information attached to the plurality of digital contents reserved by the user.

17. (Previously Presented) The reception apparatus according to claim 12, wherein said selection information's vector S is found by averaging vectors A for attribute information attached to the plurality of digital contents reproduced by the user for a specified time, averaging vectors A for attribute information attached to the plurality of digital contents reserved by the user, assigning a weight to each average, and combining the weights.

18. (Previously Presented) The reception apparatus according to claim 10, wherein said selection means selects the digital content based on a vector S of the selection information corresponding to a plurality of users.

19. (New) A reception method comprising:  
receiving digital content containing electronic program guide (EPG) and attribute information transmitted from a content provider;  
recording the received digital content and the attribute information;  
outputting the received digital content;  
allowing a user to select the digital content via a filtering process by comparing selection information indicating user preferences with attribute information attached to the digital content;

expressing the attribute information with an n-dimensional vector A comprising attribute items as elements each identifying attribute intensities for the digital content,

wherein an order and a number of the attribute items is predetermined;

expressing the selection information with an n-dimensional vector S comprising user preference items as elements,

identifying a preference intensity for each element of a corresponding element in the n-dimensional vector A,

wherein each element of vector A may identify a positive attribute intensity and may identify a negative attribute intensity,

identifying a preference intensity for each element of vector S,

wherein each element of vector S may identify a positive preference intensity and may identify a negative preference intensity, and

performing an inner product operation between the vector A and the vector S; and

determining, based on the inner product operation, whether to select the digital content.